

QTVR

Self-regulating heating cable $\langle E_x \rangle$

PRODUCT OVERVIEW



Electrical heat-tracing for process temperature maintenance applications up to 110°C which are not subject to steam cleaning.

The nVent RAYCHEM QTVR family of self-regulating, parallel circuit heating cables is used for process temperature maintenance of pipes and vessels.

It can also be used for frost protection of large pipes and for applications requiring medium temperature exposure capability.

Application

Heating Cables

Traced surface type	Carbon steel Stainless steel Painted or unpainted metal
Chemical resistance	Organics and corrosives For aggressive organics and corrosives consult your local nVent representative

Supply voltage

230 Vac (Contact your local nVent representative for data on other voltages)

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RAYCHEM-DS-EU1381-QTVR-EN-2401

PRODUCT SPECIFICATIONS

Product dimensions and weight

	10QTVR2-CT	15QTVR2-CT	20QTVR2-CT
Width x Thickness (nominal) mm	11.8 x 4.5		14.0 x 5.1
Weight (g/m)	126		180

Technical details

Maximum maintain or continuous exposure temperature (power on/off)	110°C
Maximum intermittent exposure temperature (power on/off)	110°C
Minimum installation temperature	-60°C
Minimum bend radius	$-60^{\circ}C \le T < -20^{\circ}C: 35 \text{ mm}$ $-20^{\circ}C \le T < -10^{\circ}C: 30 \text{ mm}$ $-10^{\circ}C \le T < 0^{\circ}C: 25 \text{ mm}$ $0^{\circ}C \le T <+10^{\circ}C: 20 \text{ mm}$ $T \ge +10^{\circ}C: 12 \text{ mm}$
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Thermal output rating

Nominal power output at 230 Vac on	
insulated steel pipes	



	10QTVR2-CT	15QTVR2-CT	20QTVR2-CT
Nominal power output (W/m at 10°C)	38	51	64

Maximum circuit length based on type 'C' circuit breakers according to EN 60898

A 20QTVR2-CT B 15QTVR2-CT

C 10QTVR2-CT

Electrical protection sizing	Start-up temperature	Maximum heating cable length per circuit (m)		
16 A	-20°C	65	63	47
	+10°C	80	63	47
25 A	-20°C	95	75	60
	+10°C	115	95	75
32 A	-20°C	115	100	75
	+10°C	115	100	95
40 A	-20°C	115	100	95
	+10°C	115	100	115

The above numbers are for circuit length estimation only. For more detailed information please use the nVent RAYCHEM TraceCalc software or contact your local nVent representative.

nVent requires the use of a 30 mA residual current device to provide maximum safety and protection from fire.

Where design results in higher leakage current, the preferred trip level for adjustable devices is 30 mA above any inherent capacitive leakage characteristic of the heater as specified by the trace heater supplier or alternatively, the next common available trip level for non adjustable devices, with a maximum of 300 mA. All safety aspects need to be proven.

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APPROVALS

For use in ordinary and hazardous area Zone 1 and Zone 2 (Gas), Zone 21 and Zone 22 (Dust)

Temperature classification

T4 (unconditional)

T6...T5 Possible using stabilized design

Product certification



More details about product certification, approvals and conditions of safe use are available in the installation manual for Self-regulating and Power limiting heating cable systems at www.nVent.com/RAYCHEM

ORDERING INFORMATION

Part description	10QTVR2-CT	15QTVR2-CT	20QTVR2-CT
Part No.	391991-000	040615-000	988967-000

Components

nVent offers a full range of components for power connections, splices and end seals.

These components must be used to ensure proper functioning of the product and compliance with electrical requirements.

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